In re Application of: ELDAR-FINKELMAN
Serial No.: 10/538,171
Filed: December 8, 2005
Office Action Mailing Date: February 8, 2008

Examiner: Russel, Jeffrey E.
Group Art Unit: 1654
Attorney Docket: 29724

**In the Claims:**

1-13. (Canceled)

14. (Currently Amended) A~~The~~ conjugate ~~of claim 1,~~ having the amino acid sequence set forth in SEQ ID NO:16.

15. (Currently Amended) A pharmaceutical composition comprising, as an active ingredient, the conjugate of claim 14, and a pharmaceutically acceptable carrier.

16. (Original) The pharmaceutical composition of claim 15, packaged in a packaging material and identified in print, on or in said packaging material, for use in the treatment of a biological condition associated with GSK-3 activity.

17. (Original) The pharmaceutical composition of claim 16, wherein said biological condition is selected from the group consisting of obesity, non-insulin dependent diabetes mellitus, an insulin-dependent condition, an affective disorder, a neurodegenerative disease or disorder and a psychotic disease or disorder.

18-23. (Canceled)

24. (Currently Amended) A pharmaceutical composition comprising, as an active ingredient, a conjugate which comprises:

(a) a polypeptide having the amino acid sequence :

$$[Yn\cdots Y_1]ZX_1X_2X_3S(p)[W_1\cdots Wm]$$

wherein,

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m equals 1 or 2;

n is an integer from 3 to 7, such that said polypeptide consists of 10 to 13 amino acid residues;

S(p) is a phosphorylated serine residue or a phosphorylated threonine residue;

Z is any amino acid residue excepting serine residue or threonine residue; and

$X_1$, $X_2$, $X_3$, $Y_1$-Yn and $W_1$-Wm are each independently any amino acid residue; and

(b) at least one hydrophobic moiety being attached to said polypeptide, said at least one hydrophobic moiety comprising a fatty acid,

the conjugate being capable of inhibiting an activity of glycogen synthase kinase-3 (GSK-3), wherein the hydrophobic moiety provides the conjugate with better (i) membrane permeability and/or (ii) interaction with the hydrophobic patch of the GSK-3,

~~The pharmaceutical composition of claim 15, further comprising~~and a pharmaceutically acceptable carrier, the composition further comprising at least one additional active ingredient that is capable of altering an activity of GSK-3.

25. (Original) The pharmaceutical composition of claim 24, wherein said additional active ingredient is insulin.

26. (Original) The pharmaceutical composition of claim 24, wherein said additional active ingredient is capable of inhibiting an activity of GSK-3.

27. (Canceled)

28. (Original) The pharmaceutical composition of claim 24, wherein said additional active ingredient is capable of downregulating an expression of GSK-3.

29-185. (Canceled)

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186. (Currently Amended) A pharmaceutical composition comprising, as an active ingredient, a conjugate which comprises:

(a) a polypeptide having the amino acid sequence:

$$[Yn\cdots Y_1]ZX_1X_2X_3S(p)[W_1\cdots Wm]$$

wherein,

m equals 1 or 2;

n is an integer from 3 to 7, such that said polypeptide consists of 10 to 13 amino acid residues;

S(p) is a phosphorylated serine residue or a phosphorylated threonine residue;

Z is any amino acid residue excepting serine residue or threonine residue; and

$X_1$, $X_2$, $X_3$, $Y_1$-Yn and $W_1$-Wm are each independently any amino acid residue; and

(b) at least one hydrophobic moiety being attached to said polypeptide, said at least one hydrophobic moiety being a hydrophobic peptide sequence which consists of at least five consecutive amino acid residues selected from the group consisting of an alanine residue, a cysteine residue, a glycine residue, an isoleucine residue, a leucine residue, a valine residue, a phenylalanine residue, a tyrosine residue, a methionine residue, a proline residue and a tryptophan residue,

the conjugate being capable of inhibiting an activity of glycogen synthase kinase-3 (GSK-3), wherein the hydrophobic moiety provides the conjugate with better (i) membrane permeability and/or (ii) interaction with the hydrophobic patch of the GSK-3,

~~The pharmaceutical composition of claim 183, further comprising~~ and a pharmaceutically acceptable carrier, the composition further comprising at least one additional active ingredient that is capable of altering an activity of GSK-3.